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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

MM91/0313

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ART UNIT PAPER NUMBER

2811  
DATE MAILED:

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

361,700

Applicant(s)

P. DESURE

Examiner

G. MUNSON

Group Art Unit

2811

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on 26 DECEMBER 2000.
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

## Disposition of Claims

- ☐ Claim(s) 1-27 is/are pending in the application.
- Of the above claim(s) 20-26 is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-19, 27 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
  - ☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

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Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-19 and 27, drawn to a semiconductor device, classified in class 257, subclass 292.
- II. Claims 20-26, drawn to a process for making semiconductor devices, classified in class 438, subclass 778.

The inventions are distinct, each from the other because:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case unpatentability of the group I invention would not necessarily imply unpatentability of the group II invention, since the device of the group I invention could be made by processes materially different than those/that of the group II invention, for example, a silicon oxide layer could be formed over a "second" region before a silicon oxide layer is formed over a "first" region and a "second" silicon oxide layer need not be deposited over a "first" silicon oxide layer (claim 20); the insulated gate of a transistor could be formed before a source and a drain and an "insulating" layer could be formed before a source region is formed under the "insulating" layer (claim 23).

Because these inventions are distinct for the reasons given above and, as shown by the above different classifications, the fields of search are not co-extensive and separate examination would be required, restriction for examination purposes as indicated is proper.

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Since applicant has received an action on the merits for the originally presented group I invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 20-26 are withdrawn from consideration as being directed to a nonelected invention. 37 CFR 1.145, MPEP 821.03.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8, 12-15 and 17 are rejected under 35 U.S.C. 103 as unpatentable over Koike et al of record. See Figure 2, column 4, lines 4-7, 46-52. It would have been obvious to have the substrate 1 at ground potential and the electrodes 13 (Figure 2) either connected to the substrate 1

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or via a fixed potential (claim 2). The "interference filter" reads on "silicon oxide" layer 12R, 12G, 12B and "polysilicon" layer 13. The claims remain broad in scope.

Claims 1, 4, 6, 12, 13 and 17 are rejected under 35 U.S.C. 102 as unpatentable as shown by Nagasaki et al of record. See Figure 1 with "interference filter" including "insulating" layer 4 and "conductive" layer 9. The claims remain broad in scope.

Claim 19 is rejected under 35 U.S.C. 102 as unpatentable as shown by Baji et al or Merrill et al '683 or Merrill '282 or Merrill '744. See Figure 3 of Baji et al; Figure 1 of Merrill et al '683; Figures 3A, 5 of Merrill '282; Figures 3, 5 of Merrill '744.

Claim 27 is rejected under 35 U.S.C. 103 as unpatentable over Koike et al, as in the above rejection, considered together with Merrill '744. It would have been obvious to have photodiodes as in Koike et al (Figure 2), in a well region as suggested by Merrill (Figure 6) with a "base substrate" similar to region 50 of Merrill, in order to provide isolation for the photodiodes.

Claims 11 and 18 are rejected under 35 U.S.C. 103 as unpatentable over Koike, et al, as in the above rejection of claim 17, further considered together with Nagano. For a connection of an electrode as in Koike et al (Figure 2) to a substrate, it would have been obvious to use a "heavily" doped region, as in Nagano (Figure 3, region 5a), in order to provide a low resistance ohmic contact region for the connection.

Claims 11 and 18 are rejected under 35 U.S.C. 103 as unpatentable over Nagasaki et al, as in the above rejection of claim 17, considered together with Nagano, applied as in the above rejection.

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Claims 12, 17, 18 and 27 are rejected under 35 U.S.C. 102 as unpatentable as shown by Motojima et al. See Figure 5 with the “interference filter” defined by “insulating” layer 62 and “conductive” layer 4. The “conductive portion” includes wiring 5a.

Claims 7, 9, 10 and 16 are rejected under 35 U.S.C. 103 as unpatentable over Koike et al, as in the above rejection of claims 1, 8 and 15, further considered together with Motojima et al. It would have been obvious to use a silicon nitride layer, as in Motojima et al (Figure 5, layer 8; column 3), over electrodes 13 of Koike et al (Figure 2) in order to provide passivation.

Claim 7 is rejected under 35 U.S.C. 103 as unpatentable over Nagasaki et al, as in the above rejection of claim 1, further considered together with Motojima et al. It would have been obvious to use a silicon nitride layer, as in Motojima et al (Figure 5, layer 3; column 3), over “conductive” layer 9 of Nagasaki et al (Figure 1) in order to provide passivation.

Baji et al, Merrill et al, the Merrill patents, Nagano and Motojima et al are applied in response to the new claims.

The arguments in the response, filed 26 December 2000, have been considered but are not persuasive. Contrary to the response (page 4), the *claimed* structure of the “interference filter” does not distinguish over the same structure in Koike et al and Nagasaki et al, which both disclose the claimed “conductive” layer over an “insulating” layer. Contrary to the response, Koike et al (column 4) do suggest that the electrodes are at a fixed potential, including ground potential.

No claim is allowed.

This action is **FINAL**.

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This action is a **final rejection** and is intended to close the prosecution of this application. Applicant's reply under 37 CFR 1.113 to this action is limited either to an appeal to the Board of Patent Appeals and Interferences or to an amendment complying with the requirements set forth below.

If applicant should desire to appeal any rejection made by the examiner, a Notice of Appeal must be filed within the period for reply identifying the rejected claim or claims appealed. The Notice of Appeal must be accompanied by the required appeal fee of appropriate amount.

If applicant should desire to file an amendment, entry of a proposed amendment after final rejection cannot be made as a matter of right unless it merely cancels claims or complies with a formal requirement made earlier. Amendments touching the merits of the application which otherwise might not be proper may be admitted upon a showing a good and sufficient reasons why they are necessary and why they were not presented earlier.

A reply under 37 CFR 1.113 to a final rejection must include the appeal from, or cancellation of, each rejected claim. The filing, whichever is longer, of an amendment after final rejection, whether or not it is entered, does not stop the running of the statutory period for reply to the final rejection unless the examiner holds the claims to be in condition for allowance. Accordingly, if a Notice of Appeal has not been filed properly within the period for reply, or any extension of this period obtained under either 37 CFR 1.136(a) or (b), the application will become abandoned.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Munson/ds  
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03/08/01



**GENE M. MUNSON  
EXAMINER  
GROUP ART UNIT 2811**